

AMENDMENTS TO THE CLAIMS

Listing Of Claims

Claims 1-152 (Canceled)

153. (previously presented) A semiconductor component comprising:

a thinned semiconductor die having a circuit side, a thinned back side and a plurality of peripheral edges;

a first polymer layer covering the circuit side and the edges; and

a second polymer layer covering the back side.

154. (previously presented) The semiconductor component of claim 153 further comprising a plurality of die contacts on the die, and a plurality of contact bumps on the die contacts embedded in the first polymer layer.

155. (previously presented) The semiconductor component of claim 154 further comprising a plurality of terminal contacts on the contact bumps.

156. (previously presented) The semiconductor component of claim 154 wherein the terminal contacts comprise bumps or balls in a grid array, or planar pads configured as an edge connector.

157. (previously presented) The semiconductor component of claim 154 wherein the second polymer layer is opaque to radiation at a selected wavelength.

158. (previously presented) The semiconductor component of claim 154 wherein the second polymer layer comprises a wafer level underfill tape.

159. (previously presented) The semiconductor component of claim 154 wherein the second polymer layer comprises parylene.

160. (previously presented) The semiconductor component of claim 154 wherein the second polymer layer comprises a photoresist.

161. (previously presented) The semiconductor component of claim 154 wherein the second polymer layer comprises a tape.

162. (previously presented) The semiconductor component of claim 154 wherein the second polymer layer comprises a stereographic imageable resist.

163. (currently amended) The ~~method~~ semiconductor component of claim 154 wherein a thickness of the component is about 28.5 mils.
~~further comprising etching the substrate following the thinning step such that the substrate is recessed with respect to the portions of the polymer filled trenches.~~

164. (currently amended) The ~~method~~ semiconductor component of claim ~~163~~ 154 wherein a thickness of the die substrate following the etching step is about 10 μm to ~~250~~ 720 μm .

165. (previously presented) The semiconductor component of claim 154 further comprising a polymer tape attached to the thinned back side which is opaque to radiation at a selected wavelength, and a laser marking on the polymer tape.

166. (previously presented) The semiconductor component of claim 154 further comprising a conductive via in the thinned substrate.

167. (previously presented) The semiconductor component of claim 166 wherein the conductive via comprises a conductive member exposed with respect to the substrate to provide a pin terminal contact.

168. (currently amended) The semiconductor component of claim 166 wherein the conductive via comprises a conductive member, and the component further comprises a ~~conductor on the back side and~~ a terminal contact on the back side in electrical communication with the conductive via.
~~conductivity region.~~

169. (previously presented) The semiconductor component of claim 166 wherein the conductive via comprises a reverse bias junction.

170. (previously presented) A semiconductor component comprising:

- a thinned semiconductor die having a circuit side, a back side, four peripheral edges, and a plurality of die contacts;

- a plurality of contact bumps on the die contacts;

- a first polymer layer covering the circuit side, the contact bumps and the peripheral edges;

- a second polymer layer covering the back side; and

- a plurality of terminal contacts on the contact bumps.

171. (previously presented) The semiconductor component of claim 170 wherein the contact bumps and the first polymer layer are planarized to a same surface.

172. (previously presented) The semiconductor component of claim 170 wherein the contact bumps comprise metal bumps.

173. (previously presented) The semiconductor component of claim 170 wherein the terminal contacts comprise conductive bumps or balls.

174. (previously presented) The semiconductor component of claim 170 wherein the first polymer layer has a planarized first surface.

175. (previously presented) The semiconductor component of claim 170 wherein the second polymer layer has a planarized second surface.

176. (previously presented) The semiconductor component of claim 170 further comprising a plurality of conductive vias in electrical communication with the die contacts and with the terminal contacts.

177. (previously presented) The semiconductor component of claim 176 further comprising a plurality of second die contacts on the second polymer layer in electrical communication with the conductive vias.

178. (previously presented) The semiconductor component of claim 170 wherein the second polymer layer comprises a photopolymer.

179. (previously presented) The semiconductor component of claim 170 wherein the second polymer layer comprises a wafer level underfill.

180. (previously presented) A semiconductor component comprising:

a thinned semiconductor die having a circuit side, a back side and four peripheral edges;

a circuit side polymer layer covering the circuit side;

a plurality of edge polymer layers covering the four peripheral edges, the edge polymer layers and the circuit side polymer layer comprising a continuous layer of material, the edge polymer layers comprising portions of polymer filled trenches; and

a back side polymer layer covering the back side.

181. (previously presented) The semiconductor component of claim 180 further comprising a plurality of die contacts on the die, and a plurality of contact bumps on the die contacts embedded in the circuit side polymer layer.

182. (previously presented) The semiconductor component of claim 180 further comprising a plurality of die contacts on the die, and a plurality of planarized contact bumps on the die contacts embedded in the circuit side polymer layer and planarized to a surface thereof.

183. (currently amended) The semiconductor component of claim ~~180~~ 182 further comprising a plurality of terminal contacts on the contact bumps.

184. (previously presented) The semiconductor component of claim 180 further comprising a plurality of conductive vias through the die

185. (previously presented) The semiconductor component of claim 180 further comprising a plurality of conductive vias through the die including exposed portions configured as pins.

186. (previously presented) The semiconductor component of claim 180 further comprising a plurality of conductive vias through the die including tip portions, a plurality of conductors on the back side in electrical communication with the conductors, and a plurality of terminal contacts on the back side in electrical communication with the tip portions.

187. (previously presented) The semiconductor component of claim 180 wherein the back side polymer layer is opaque to radiation at a selected wave length.

188. (previously presented) The semiconductor component of claim 180 wherein the back side polymer layer comprises a wafer level underfill.

189-261 (canceled)